ABSTRACT

EDUCATIONAL LEADERSHIP

DAVIS, A. VIRGINIA

B.S. FISK UNIVERSITY, 1972
M.ED. ATLANTA UNIVERSITY, 1973
ED.S. UNIVERSITY OF GEORGIA, 1982

THE IMPACT OF A SCHOOL ACADEMIC IMPROVEMENT TREATMENT MODEL EMPHASIZING PARTICIPATORY LEADERSHIP ON STUDENT ACHIEVEMENT AND TEACHER JOB SATISFACTION IN TWELVE ELEMENTARY SCHOOLS

Advisor: Dr. Null Tucker

Dissertation dated May, 1998

This quantitative study examined the impact of a school academic improvement treatment model emphasizing participatory leadership and other selected variables on student achievement and teacher job satisfaction. The study was over a one-year period involving thirty elementary schools in the largest school system in the state of Georgia. Twelve of the thirty schools were in the treatment group. The schools were selected because of their history of low student academic achievement. The study was an analysis of work during the 1996-97 academic school term.

There were seven independent variables and two dependent variables in this study. The statistical procedures included a Pearson *r* correlation and a *t* test of significance.

There were three significant findings. In the treatment schools there were higher reading normal curve

equivalency gains than in the control schools. The reading scores in the schools with the lowest reading comprehension scores on the 1996 Iowa Tests of Basic Skills (ITBS) made the greatest reading gains on the 1997 ITBS. The schools with the lowest socioeconomic status (SES) made the highest gains.

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A DISSERTATION

SUBMITTED TO THE FACULTY OF CLARK ATLANTA UNIVERSITY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR

THE DEGREE OF DOCTOR OF EDUCATION

BY

A. VIRGINIA DAVIS

DEPARTMENT OF EDUCATIONAL LEADERSHIP

ATLANTA, GEORGIA

MAY 1998

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ACKNOWLEDGEMENTS

The author extends an expression of appreciation to members of the dissertation committee: Dr. Null Tucker, major advisor, Dr. Leslie Fenwick, and Dr. Ganga Persaud. Special gratitude is also expressed to colleagues who work for the DeKalb County School System and who provided technical support for this study.

Special appreciation is expressed to Mr. Shedrick S. Davis, husband of the author, Mrs. Susie B. Smith, mother of the author, and to other family members, who provided encouragement and support in this research endeavor. Deepest appreciation is extended to the DeKalb County School System for participating in this study.

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INTRODUCTION

Introduction

School academic improvement has been a topic of study in the educational arena for many years. There is a demand for strong school leadership in order to bring our nation's schools to a state of excellence, and the principal has been identified as the person primarily responsible for providing this leadership (Drake and Roe 1986). One of the primary goals of a school is to provide academic success for all of its students. For a school to be considered effective, this goal of successful academic achievement must become a reality.

According to Edmonds (1979, 1982), leadership of the principal is crucial to an effective school. Without strong leadership, the elements of good schooling can neither be brought together nor kept together. The principal has many roles to fill in the operation of the school. The central roles are building manager, administrator, and instructional leader. The school leader should optimize or facilitate the meeting of the needs and the achievement of the goals of the

organization and of the people who make up the organization (Edmonds 1979, 1982).

A primary goal of the principal is to develop an effective school environment. Leadership theories emphasize the importance of connecting people to each other and to their work. This connection satisfies the need for coordination and commitment that any enterprise needs to be successful (Sergiovanni 1994). One of the signs of an effective leader appears to be the mastery of shared decision making and consensus building (Chalker 1992). This sharing of leadership suggests a genuine belief that school staff members make a positive difference to solutions of problems as compared to when the principals make decisions alone (Leithwood 1992).

Lugg and Boyd (1993) referred to an effective leader as one who explores ways to develop and strengthen the collaboration between individuals within the schools. According to Clark and Clark (1996), a collaborative environment makes provisions for sharing dreams, ideas, and expertise, a sharing that often results in higher quality decisions. In addition, participatory involvement offers all groups a sense of efficacy, the power to make a difference in the direction and the success of the school.

The successful implementation of a leadership style of the principal is one of the key elements that impacts

the successful operation of the school, staff morale, and academic achievement (Heck and Marcoulides 1993). According to Sergiovanni (1994), leadership theories provide a means of connecting people to each other and to their work, which entails satisfying the needs of coordination and commitment that any enterprise must achieve in order to be successful. The sharing of power with the staff allows the principal to establish the basis for collegial environments that contribute to positive working conditions and foster schoolwide support of the school improvement effort (Chalker 1992). The ability for leaders to effectuate these characteristics within their building may help if there is a belief in the concept of team building and the desire to promote teacher involvement in the operation of the school (Sergiovanni 1994).

The development of the science of administration has gone through several phases. At the beginning of the twentieth century, traditional or classical theorists believed in the "scientific method" in which to promote work efficiency. The leader made all of the decisions, and the employees implemented them. According to several experts, this theory failed to motivate the worker (Hoy and Miskel 1987). In the 1930s, the "human relations" management theory evolved. This management practice consisted of productive organizations where the managers and workers developed and sustained harmonious personal relations (Drake

and Roe 1986). This theory operated under the assumption that satisfied workers would successfully attain organizational goals. This theory resulted in greater worker satisfaction than in the increased attainment of organizational goals. It appeared that the organization goals were not the primary focus of the employees.

In 1957, Getzels and Guba developed the "social systems" model. This model established a connection between the organization and the person. It also acknowledged that the organization was made up of individuals and that there is a connection between the roles and expectations of the organization and the personality and needs of the individuals (Getzels and Guba 1957). This theory gave rise to the participatory management style. According to Lindelow (1989), this style is a leadership behavior that attempts to achieve organizational goals and meet the needs of the individuals working within the organization. This type of leadership requires that the teachers actively share in the formal decision-making process within the school. The principal must be willing to share power with the staff (Clune and White 1988). According to Osterman (1989), participatory management has been the dominant trend in educational administration for the last decade, and it continues to be widely used today.

The National Policy Board for Educational Administration (1993) stated that effective principals initiate the

development of broad school goals and work collaboratively with teachers to formulate goals and school operational objectives. According to Drake and Roe (1994), John Dewey suggested that absence of participation tends to produce lack of interest and concern on the part of those excluded. Hatchett (1995) conducted a study on an analysis of teacher empowerment, transformational leadership, and job satisfaction. Results of the study were supported by both the literature and the findings from the data. It is clear these variables need to be included in the management of schools. DuFour and Eaker (1992) found, for the most part, that school administrators have not responded positively to the calls for increased teacher empowerment. Many administrators genuinely fear a loss of control. Some individuals confuse leadership with "bossing." The real challenge is how to produce the best results. Studies done by Etheridge and Hall (1994) and Sinnott (1995) found participatory leadership to be positively related to student achievement, whereas Herron's (1994) study suggested that leadership style does not influence student achievement. The controversy in participatory leadership suggested by these studies and the desire to enhance academic effectiveness within schools builds a case for further investigation in this area.

Purpose of the Study

It was the intent of this study to investigate the impact of a school academic improvement treatment model emphasizing participatory style of leadership and other selected variables on student achievement and teacher job satisfaction in low-achieving schools. The Iowa Tests of Basic Skills (ITBS), a norm-referenced assessment instrument, was used to assess student achievement in the area of reading comprehension. The Profile for Assessment of Leadership (PAL) instrument was used to assess principal leadership and teacher job satisfaction. The PAL was developed in 1983-84 by a committee of principals, assistant principals, teachers, and central office administrators under the direction of the Department of Research and Evaluation of the DeKalb County School System. It was piloted, field tested, and validated in 1984 and 1985. A cluster of items related to school climate was added in 1987. The competency cluster pertaining to personnel evaluation was revised in 1991 to reflect the principal's role in the state evaluation process. Also, in 1990, the entire instrument was edited to address principals only. It was revised in 1994 to reflect the importance of instructional leadership. The PAL's use for principals was validated in 1985-86 and after revisions were made in 1991 and 1994. Each of these instruments had the appropriate statistical validity and reliability.

Background of the Problem

The DeKalb County School System is the largest school system in Georgia, with eighty elementary schools and 92,000 students. Of these eighty schools, there are a number of schools that have historically scored low on standardized tests or are experiencing a declining trend in test performance, despite the efforts made to reverse these trends. For the purposes of this study, thirty elementary schools were selected to participate in this activity. Of these elementary schools, twenty-seven fall within the bottom range of the eighty schools in the area of standardized test performance on the ITBS in reading comprehension and total mathematics. This group includes schools with a normal curve equivalent (NCE) scoring range of 37 to less than 50 on the ITBS in one or both areas of mathematics and reading. The additional three schools are higher scoring schools with NCE scores in the 50+ range. However, these three schools are experiencing an increase in their population of students on free lunch status with standardized test scores on the ITBS within the 37 to less than 50 NCE range.

Twelve schools from this group of thirty within the lowest test score range on the mandated state assessment test (the ITBS) were identified to receive the school academic improvement treatment by participation in a program that targeted increasing standardized test scores in the area of reading comprehension. These treatment schools

were characterized by a high population of students (83.4 to 100 percent) on free and reduced lunch and with parental involvement of less than 15 percent as measured by Parent Teacher Association (PTA) membership. The other eighteen schools made up the control group with fifteen of them having a free and reduced lunch population of 55 to 94.5 percent and limited parental involvement range of less than 15 percent as measured by PTA membership. The additional three higher scoring schools had a free and reduced lunch population within the 23.6 to 55.5 percent range and a parental involvement range of more than 40 percent as measured by PTA membership.

Each of the twelve treatment schools was mandated by the system superintendent to implement the participatory leadership model in developing a school academic improvement treatment model specific to the needs of each site. A major component of this model had to include shared decision making among the principal, staff, parents, business/community volunteers, and students in collaboration for assessing needs, planning remediation, and identification and implementation of effective teaching strategies specific to the needs of the school. There was consistent principal monitoring and guidance throughout the process. No formal procedure for implementation by the school was provided. The purpose for this approach was to allow the schools to

take the leadership role in self-assessment and effective treatment plan development and implementation.

The control schools were given no directions other than to do business in their usual manner in an effort to improve student achievement. The control schools' mode of operation has traditionally been one of top-down decision making. Within this mode, mandates for operation were developed at the central office and handed down to the schools to implement. These schools were given specific guidelines to follow for staffing, scheduling, and materials that can be used. Parental involvement has generally been limited to PTA projects that support general school system goals developed at the central office. Within the control group, all schools basically receive the guidelines for improvement from the central office.

Treatment

In the summer of 1996, the principal, staff, and community representatives from the twelve treatment schools attended on-site twenty-hour school restructuring workshops to develop a detailed school academic improvement plan with twenty or more participants per site. Each school developed surveys that were administered to the students, staff, and parents/community to obtain input on their perceptions of their school, its educational program, and suggestions of

activities each group felt would enhance their involvement in improving academic achievement within the school.

Active school community participation in the development of general plans was critical to the process, which involved the reviewing and analyzing of school profiles, test histories, and survey results from the community, staff, and student populations to assess their needs, perceptions, and vision for their schools. Brainstorming sessions were conducted to develop plans to address the issues of increasing student test performance and improving teacher job satisfaction. These brainstorming sessions allowed the schools to conduct in-depth examination of the factors that appear to inhibit or increase student achievement as measured by standardized tests and to examine conditions that may cause an increase in teacher job satisfaction within their individual school settings. Each school envisioned its projected achievement level (high test scores and increased job satisfaction), identified inhibiting factors, and developed plans to fill the gaps. Action teams were established at each school to oversee the development and implementation of the various action plans.

The schools were given the flexibility to use staff members differently, and this involved the changing of some routine job assignments and the creation of some new job assignments. These treatment schools were encouraged to be creative and innovative. Critical to this process was the

identification and implementation of effective teaching strategies to address the specific identified needs for each school site. They had flexibility in schedulng and in the selection and use of materials. As needs were identified by the schools, support staff from the county level were assigned to make these requests a priority.

Once the plans were completed, meetings were held with the school staffs and communities to present each school's plan and get the approval and commitment from all involved. The plans were then submitted to the Division of Instruction for final approval. This was followed by implementation within the schools.

Within these twelve treatment schools, the typical school improvement plans included action plans in the areas of reading comprehension, mathematics, parental involvement, and staff development. Common strategies that the schools identified as high-yield strategies included collaborative school/community planning, expanded reading and mathematics periods, parental involvement activities that focused on supporting instructional goals, site-specific staff development activities, diversity in effective instructional delivery strategies designed to address identified needs, scheduled weekly/daily collaborative grade-level planning periods, strong principal monitoring, and support to the staff from the central office in effective plan implementation. Also included as a high-yield strategy was the

continuous presentation of the mission by the principal, the superintendent, and the director in charge of the project to all school communities in the treatment group, which helped to maintain the focus within the treatment schools.

To assure that this endeavor was participatory, the project director, superintendent, school board members, and executive directors made frequent site visits and talked with staff members and parents about their involvement. These individuals participated in site planning meetings and continuous monitoring of the process. There were routine scheduled meetings with individual staff members, parents, grade levels, and whole staffs where they were provided opportunities to share any problems they had concerning the process. Their input was continuously requested, and concerns were addressed in an expeditious manner.

Statement of the Problem

In the DeKalb County School System, a review of the test scores from the last five years by the Department of Testing has shown that there are schools in which the student achievement as measured by the ITBS has been consistently below the state and national average. A review of the school's climate, as assessed by the principal's yearly evaluation on the PAL, also suggested low teacher morale. The building administrators seldom or never utilized the practice of teacher/community participation in decision

making within the school operation. Parental involvement, as documented by PTA membership, was very limited. Each of these low-achieving schools was required to develop and implement a school academic improvement treatment model using the participatory leadership model to improve student achievement and teacher job satisfaction. The achievement of these schools was determined by comparing the performance of their students on the ITBS one year (1995-96) prior to the treatment with one year following (1996-97).

For some, the idea of participatory leadership and shared power may evoke images of a lumbering, slow-moving organization where consensus must be reached before anything can be done. According to Tye (1994), most leaders see themselves as making the decisions that others carry out. While Clark and Clark (1996) found that a collaborative environment is a strong predictor of student achievement, Likert and Likert (1976) found the participatory organization to be the most effective management style. This investigation of the impact of a school academic improvement treatment model emphasizing participatory leadership and other selected variables on student achievement and staff job satisfaction may provide further evidence to support the use of this type of collaboration within the school operation to improve student achievement and teacher job satisfaction.

Significance of the Study

School leaders are in a position of power that impacts and often shapes and determines the direction and tone of the instructional program and the building (Edmonds 1979). This study of the impact of a school academic improvement treatment model emphasizing participatory leadership and other selected variables on staff morale and student achievement examined the effectiveness of this practice. The encouragement of input from the school community in developing a mission statement, school academic plan, and program implementation may be a vital component in the successful development of an effective school. It was hoped that this treatment model would result in a high level of staff job satisfaction and student academic achievement in schools where the previous practices of following general guidelines from the central office with limited or incidental teacher and community participation. Results of this study may provide a possible answer to this question and possible directions for the school system to consider for further expansion of this study to other schools throughout the system.

This study is significant because it may (1) provide data on whether student achievement improves as a result of the treatment, (2) examine the impact of the treatment on staff job satisfaction, (3) identify a possible school improvement treatment model for future school improvement

initiatives, (4) provide information as to how the race of a leader may impact student achievement and teacher job satisfaction, (5) provide information as to how the gender of a leader may impact student achievement and teacher job satisfaction, and (6) provide information as to how the years of experience of a leader may impact student achievement and teacher job satisfaction.

Effective leadership is crucial to the successful operation of schools. This effective leadership includes attaining good staff morale and successful academic achievement. The purpose of this study was to examine the impact of a school academic improvement treatment model emphasizing participatory leadership and other selected variables on student achievement and teacher job satisfaction. Positive results of this study may motivate leaders to take a closer look at shared decision-making opportunities they make available to their subordinates.

Research Questions

The research questions examined in this study are as follows:

1. Is there a significant difference between reading NCE gain scores in the treatment schools versus the control schools?

2. Is there a significant difference between reading NCE gain scores and teacher job satisfaction in the treatment schools versus the control schools?

3. Is there a significant relationship between reading NCE gain scores and 1997 reading NCE scores in the treatment schools versus the control schools?

4. Is there a significant relationship between reading NCE gain scores and 1996 reading NCE scores in the treatment schools versus the control schools?

5. Is there a significant relationship between reading NCE gain scores and principal experience in the treatment schools versus the control schools?

6. Is there a significant relationship between reading NCE gain scores and principal race in the treatment schools versus the control schools?

7. Is there a significant relationship between reading NCE gain scores and principal gender in the treatment schools versus the control schools?

8. Is there a significant relationship between reading NCE gain scores, free lunch status of schools, and principal leadership styles in the treatment schools versus the control schools?

9. Is there a significant interrelationship between reading NCE gain scores and the variables of principal leadership style, treatment, teacher job satisfaction, and free lunch status?

All of the above-stated research questions relate to our examination of the impact of a school academic improvement treatment model emphasizing participatory leadership and other selected variables on student achievement and teacher job satisfaction. It was hoped the answers to these questions would provide additional information that would guide the use of participatory leadership within schools.

Summary

The development of a school academic improvement treatment model emphasizing participatory leadership may be a key ingredient to the success of schools in the future society. Today, there appears to be a focus on the restructuring within our schools to meet the increased demands of society for more accountability by our schools. This movement involves the replacement of a bureaucratically controlled organizational structure with a democratic professional community model where the principal, teachers, and community work together to develop strategies for curricular, instructional, and academic improvement. In order to achieve this goal, a treatment model similar to this one may be necessary.

Chapter II presents an in-depth review of the literature. It provides analysis and synthesis of the most current manuscripts, journal articles, dissertations, and books relevant to this topic.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Organization of the Review

This study investigated the impact of a school academic improvement treatment model emphasizing participatory leadership and other selected variables on student achievement and teacher job satisfaction. This chapter summarizes the literature and research on participatory leadership, teacher job satisfaction, student achievement, and their relationship to and impact on each other. It also presents a general overview of the historical perspective of leadership. The review moves into the arena of participatory leadership, providing research and literature that address this concept. This is followed by an examination of teacher empowerment and student achievement, participatory leadership and teacher job satisfaction, and concludes with a summary of the review.

Leadership

Leaders and leadership styles have long been subjects of study analysis and reflections. Leadership is not a process that can easily be analyzed or quantified.

According to Stogdill (1974), the term "leadership" first appeared in the English language in the 1300s, with specific definitions of leadership and leadership research documentation dating back to the early 1900s. These definitions have been influential in directing attention to the importance of group structure and group processes in the study of leadership. The question as to what constitutes an effective leader has been studied for many years, and a study of the historical path of leadership provides us with a variety of perspectives.

Historical Path

In leadership, major historical ideologies are the scientific management theory, the human relations approach, the bureaucratic approach, and the situational/contingency theory. Each of these approaches is discussed.

The scientific management theory, which emerged early in the twentieth century, had organizational efficiency as its goal. It placed emphasis on the efficiency of production. Hersey and Blanchard (1998) summarized this period by stating that teachers were characterized as the individuals who set up and informed performance criteria to meet organizational goals. This was totally task oriented and focused upon the needs of the organization. This viewpoint overlooked the human element of the organization and was considered inadequate, even though it had considerable

staying power. The present neoscientific management and the accountability movement in education are based upon the scientific management principle.

The human relations leadership style was developed in response to the impersonal nature of the scientific management approach. The approach was led by the work of Follett and Mayo (Drake and Roe 1986). They expanded the scope of management study to a consideration of how organizations work (Campbell et al. 1984). Human relations leadership is based on the assumption that the interpersonal relationships in an organization determine its effectiveness. The goal of the approach was seen as producing worker satisfaction, and the focus was on the needs of individuals in the organization (Hersey and Blanchard 1988). Hersey and Blanchard (1988) characterized this period as one where the function of the leader was to facilitate cooperative goal attainment among followers and to provide opportunities for their personal growth and development.

Yet another development in the evolution of staff leadership was the bureaucratic approach. The bureaucratic approach was introduced in the 1940s. Max Weber theorized this approach as one of structure and rules (Campbell et al. 1984). He summarized that rational decision making and authority should be based upon the right of law, or "legal domination." Weber stated that bureaucratic administration frees the organization from absolute rule by an individual

style and from the traditions of the past (Campbell et al. 1984). The organization became the primary focus of the individuals in leadership positions, and the organization became the primary purpose for work. There was a clean shift from service to maintenance.

In 1950, a number of researchers began investigating leader behavior. The result was a number of useful models. The simplest one identified three basic behavioral characteristics of leaders: (1) authoritarian, which is characterized as directive and task oriented; (2) democratic, which is seen as participative and process and relationship oriented; and (3) laissez-faire, which is said to be non-directive and lacking in formal leadership (Lewin, Lippitt, and White 1960).

The behavioral approach included consideration of the school situation as well as the behaviors of both leaders and followers. The model is referred to as situational leadership (Hersey and Blanchard 1988). In this model, the terms "task behavior" and "relationship behavior" are used as descriptive concepts. The notion is that the effectiveness of leaders depends upon their selecting the appropriate class of behavior in light of the maturity of the group (Hersey and Blanchard 1988).

Later researchers investigated the effect of situational variables which influence the effectiveness of specific leadership styles. During the 1970s, Fred Fiedler

and his associates developed the contingency model of leadership (Sergiovanni 1990). The contingency theory holds that the group's effectiveness is contingent on the interaction between two variables: (1) the motivational system of the leader, or his/her relating to the group; and (2) the favorableness of the group situation, or the degree to which the situation allows the leader to control the group. Further, Fiedler suggested that both task-oriented and relationship-oriented leaders perform effectively in a group (Sergiovanni 1990). Research does suggest that leadership success and effectiveness is highly situational. Leadership behaviors are related to such organizational variables as situation and productivity, the nature of the task at hand, organizational structure and climate, occupational level of employees, group cohesiveness and harmony, motivation, organizational conflict, group characteristics, bureaucracy, and innovation.

The basic assumption of situational leadership is that the leaders reduce task behavior and increase relationship behavior as the task maturity of the followers increases. Situational leadership selects the appropriate leadership style according to the task and based on the maturity of the followers (workers). This style also gave rise to the viewpoint of situational ethics.

The research shows strong instructional leaders in several consistent ways. They include placing priority on curriculum and instruction, dedication to district goals, the generation and use of resources to accomplish goals, creating a climate of high expectations, and consulting with others in making school decisions (Smith and Andrews 1989).

According to Sergiovanni (1984), school leaders exhibit several degrees of effectiveness using five leadership forces. These forces start or stop change in a school setting. These leadership forces are hierarchical and built upon each other. They are as follows: (1) techniques--sound management techniques; (2) human--harnessing social and interpersonal resources; (3) educational--expert knowledge; (4) symbolic--focusing on attention of others in important matters; and (5) cultural--building a unique setting.

Hagen and Scarr (1983) and Rancifer (1990) recognized that student achievement increases when administrators spend more hours on instructional leadership. Schmidt (1990) found that the principal's leadership style also affected student achievement. Additionally, Couch (1991) found that the amount of time spent on instructional duties had no effect on student achievement.

This overview of leadership style strongly suggests that the state of leadership has produced volumes of material for investigation and has spanned over a quarter of

a century. Leadership can vary greatly from autocratic to democratic. The research also points out that both the leader and the followers are significant players in the successful operation of the school. Therefore, each should be given careful consideration in developing a mode of operation within the schools. It seems that the participation of each of these components of the school family is essential to the effective operation of our educational institutions.

Much of the literature on leadership focuses on power and control. The principal can be, and is in many instances, a positive leadership force. The principal can foster the acceptance of responsibility within the school by sharing the power/authority. If the principal fully shares his or her power with the teachers and has the expertise to develop a true team spirit within the school, the teachers support the school program, become more productive, and ultimately increase the overall quality of the school's instructional program. A by-product of this increase may be an increase in student achievement on standardized assessment instruments.

Demographic Variables Related to Leadership

Gender and race. According to Shakeshaft, Nowell, and Perry (1991), the gender of a leader affects what is communicated and how it is communicated. Men and women

communicate differently and listen for different information. Women and men leaders differ on the trust issue. Women view trust as competence, and men view trust through confidentiality of information. Also, Shakeshaft, Nowell, and Perry (1991) cited women to be more instructionally focused and men to be more administratively focused.

Hudson and Rea (1996) conducted a survey that was distributed to 1,047 public school teachers on their attitude toward female principals. They found characteristics traditionally attributed more to women as desirable in all school administrators: good communication skills, knowledge of curriculum and instruction, personableness, good management skills, and willingness to seek input.

Cline et al. (1990) indicated that a primary difference in effective and ineffective schools is the school's administrator, regardless of gender. However, they stated that research indicated that teachers experience more job satisfaction with female principals. Schmuck and Schubert (1986) found that, although female principals tended to be more concerned with instructional and intensive interaction with the faculty than did men, only modest passive gestures were made toward initiating equity programs or activities within their schools. McClean (1988) conducted an investigation to measure the relationship of selected school profile variables to the dimensions of organizational

health. He found that, in 1980, schools with female principals in the District of Columbia public schools showed an increase in the reading gain scores of their students which was significantly higher than those of students in schools with male principals.

Brown (1989) conducted a study on the relationship of gender, race, and years of experience of the principals to student achievement in their schools. The results of this study showed that neither gender, race, or years of experience affected the level of student academic achievement.

Robertson and Kwong (1994) conducted a study with responses from 682 school leaders to assess how decision-making quality results and gender/race related in administrators. The results of this study showed that there was no difference.

According to Banks (1995), there is an underrepresentation of women and minorities in school leadership. She further expounded that in terms of advanced training, degrees held, number of years in the profession, and total number in the pool from which administrators are drawn, there is no justification for the small numbers of women and minority education leaders.

Years of experience. According to Guthrie (1996), the years of leadership experience or leadership practice of the principal provide tacit knowledge which may also be

described as practical. Guthrie further stated that this experience involves either skill (the ability to do something well) or perceptual ability (gaining knowledge through the senses that would not be obvious to an inexperienced person). Guthrie (1996) found that many decisions of experienced leaders are not consciously made but result from "preconscious" process or habit. An experienced leader can also anticipate and prevent problems.

Smith (1993) described leadership as a developmental process through experience. Leadership involves more than management. The development of leadership trains principals to utilize their staff to meet challenges. Through experience, these leaders recognize the importance of involving co-workers in the decision making. According to Nolan (1987), first-year principals often assume the role of the instructional leaders in the environments created by their predecessors.

Herron (1994) conducted a study of 194 principals and schools that investigated the relationship between the years of experience of a principal and student achievement. He concluded that there was no significant correlation. Dixon (1981) conducted an investigation on the relationship between principal leadership and reading achievement. He concluded that principal experience contributed negligibly to reading achievement.

In contrast, for over twenty years investigators have reported that women school administrators contribute to higher teacher performance and student achievement (Clement, DiBella, Eckstrom, and Tobias 1977; Gross and Trask 1964, 1976; Manasee 1982; Tibbets 1990). Fishel and Pottker (1975) found that women principals were more concerned than men with students' individual differences.

Participatory Leadership: A Definition

For the purpose of this study, participatory leadership is defined as shared decision making (Strusinki 1990), management by objectives (Reddin 1970), delegating ("Educational Leadership--Visionary Leadership in Schools" 1996; Blanchard, Zigarmi, and Zigarmi 1987), empowerment of teachers, collaboration and distributive leadership (Thurston, Clift, and Schacht 1993), and shared governance and/or an educational setting where the teachers have an active voice in the operation of the school.

Likert and Likert (1976) reported that the benefits of participatory management were: (1) decisions made are better accepted by the group, (2) communications are more free between levels, (3) positive motivation results from the use of group processes, and (4) climate within the organization is one of trust. Likert and Likert (1976, 1986) further described leadership styles as being on a

continuum from System 1 to System 4. System 1 is "exploitive authoritative," System 2 is "benevolent authoritative," System 3 is "consultative," and System 4 is "participative or participatory." In System 4, mutually acceptable solutions are achieved through group problem solving facilitated by the participative leader.

Participative decision making is a collaborative, consensus-building approach between subordinates and superordinates who work together as equals to share and analyze problems together, generate and evaluate alternatives, and attempt to reach an agreement on decisions (Wood 1984). Much of the current wave of educational reform has been couched in the language of teacher participation and empowerment. Policy makers and advocates have called for the development of collegial professional models where teachers work and greater involvement of teachers in decisions that affect their work (Carnegie Foundation for the Advancement of Teaching 1988, National Governors Association 1986). Several large urban school districts, including Chicago, Philadelphia, Baltimore, Pittsburgh, and Dade County, Florida, have implemented school restructuring featuring system decentralization and participative decision making at the school level (David 1989, Hers 1991). A recent national survey of school board members found that more than two-thirds of these districts were involved in locally initiated school reforms, and for 70 percent the

reforms involved site-based management and teacher empowerment (Gaul, Underwood, and Fortune 1994).

According to Blase (1987), theoretically a reason for empowering teachers is motivation. This suggests that teachers are likely to be more personally invested in their work within an organization when they have a voice in what happens to them and their work has meaning and significance in contributing to a higher purpose or goal.

Not only does involvement and purpose affect the overall level, it affects the quality of motivation. When teachers are treated in a way that allows them to develop a sense of self-determination and purpose, they, in turn, relate to students in a qualitatively different fashion (Ryan and Stiller 1991).

Another reason for engaging teachers is a matter of harnessing their expertise and the knowledge that they bring to the education process. Teachers have a special awareness of the daily happenings in classrooms and schools that often surpasses that of principals or outside experts. According to Maehr et al. (1992), when given the opportunity, teachers are eager to take an active role in deciding what happens in their school. The empowering of teachers enhances staff morale and is crucial to successful school changes.

Conley (1991) and David (1989) observed that much of the discussion on participation has proceeded seemingly

unaware of the different meanings of the term. This difference is partly a matter of focus (i.e., participation in decisions about ends versus means or strategic versus technical matters) and partly one of goals and standpoint (i.e., location in the social and educational system, political orientation). The different levels of participation in this context mean that teachers may find satisfaction in the participatory process at several points. The extent to which the definition of participation is modified by the principal will also determine the extent to which he/she is attuned to the shared decision-making process. If they simply leave it at the lowest level, teachers will respond accordingly.

The human relations approaches affirm that workers will be more productive if intrinsic and extrinsic factors predominate their motivation to work--that is, if working enables them to satisfy some of their basic psychological needs, including affiliation, power, and self-esteem. Accordingly, participation is designed to achieve improvement in organizational climate and job satisfaction (Keith 1996).

Principals must master the process of shared decision making and consensus building. Principals spend much of their time on decision making. Although the leader continues to have to exercise positional authority, an

attitude of collaboration can replace a top-down administrative style. Collaboration is evident in an atmosphere in which information and ideas are shared and teachers and principals make core curriculum decisions jointly. Indeed, a collaborative orientation makes it problematical to consider leadership styles. In this situation, the principal and the teachers must manifest leadership behavior. Collaboration encourages risk taking and requires involvement sharing. Valuing others' motivations and judgments is essential. Simply put, distributive leadership progresses from principal-dominated to principle-centered decision making, and those involved share a common core of beliefs and values. Distributive leadership entails a dynamic relationship that emphasizes process over power (Thurston, Clift, and Schacht 1993).

The low supportive/low directive behavior is called delegating. The leader discusses problems with subordinates until joint agreement is achieved on problem definition, and then the decision-making process is delegated totally to the followers. Subordinates are allowed to run their own show because they have both competence and confidence (Blanchard, Zigarmi, and Zigarmi 1987). The manager empowers members of the team to make decisions and take action in areas where they have expertise and are motivated to follow through.

A democratic view and discussion of leadership may affirm participation in decision making as a right of all involved. This discourse shares with the human relations approach a belief in the importance of cultivating participants' intrinsic motivation. Participation is an ethical imperative, rooted in the fundamental human right of agency--the power to work collectively and interdependently with others to coconstruct our world. It is based on the premise of limiting and eventually eradicating power differentially and inequities and reconstructing the workplace, school, and other organizations as just and caring democratic communities.

Nicholas (1994) investigated the principal's perspectives on sharing leadership and decision-making responsibilities with teachers. The results suggested that shared leadership means trusting teachers, respecting them as professionals, and involving them in determining the direction and purpose of the school and in assuming responsibility for many of the daily decisions and leadership roles in the school.

Principals, by valuing and recognizing the contributions of each teacher, staff member, student, and parent, give high credibility and validity to the collaborative process. Principals also bolster collaboration by

providing guidance in establishing procedures for the identification of tasks and the organization and operation of collaborative groups (Clark and Clark 1996).

Teacher Empowerment and Student Achievement

Factors that positively impact student achievement continue to be a major topic of interest in the educational arena. Does participatory leadership fostering shared governance with teachers impact student achievement? The research in this area appears to be inconclusive but does offer some promising insights into the practice.

According to a study conducted in California schools by Heck and Marcoulides (1993), the ways in which elementary and high school principals govern the school, build strong school climate, and organize and monitor the school's instructional program are important predictors of academic achievement. This study sought to identify important parameters of school leadership and estimate their effect on school achievement. The researchers also found that principals in high-achieving schools involve teachers in critical decisions about instruction. This study went on to suggest that effective principals appear to develop a sense of teamwork at the school in planning, implementing, and evaluating the instructional program.

Bulach et al. (1994) examined the influence of the principal's leadership style on school climate and student

achievement. Surveys were administered to 20 principals and 506 teachers in 20 Kentucky schools, and the achievement scores of 2,834 third and fifth graders were also analyzed. A conclusion was that schools with higher levels of parent/ community involvement and principals with "promoter" leadership styles may enhance their student achievement. Tyler (1988) suggested that the principal's role in promoting student learning is to stimulate teachers and parents to help identify serious educational problems the school is encountering while attempting to educate all students.

Etheridge and Hall (1995) explained the outcomes associated with shared decision-making efforts during a three-year research study. The researchers concluded that democratic leadership was the only leadership style related to sustained increased student achievement for those three years of the study. Also, according to Etheridge and Valesky (1992), the schools with a democratic leader exhibited the most rapid progress toward shared decision making and extensive participation involvement, and they further recommended that a democratic leadership style should be considered as a criterion for selecting school leaders.

Moore and Esselman (1994) hypothesized that a sense of personal and teaching efficacy can be explained, in part, by a historical pattern of student achievement performance and workplace. To measure perceptions of efficacy, power,

and school climate, a questionnaire was completed and scores on the Iowa Tests of Basic Skills (ITBS) were used to determine students' historical achievement performance. The study concluded with a recommendation that provisions for greater opportunity for teachers to participate and be influential in instructional and curricular decisions be examined.

According to Cohen (1994), most discussions about restructuring schools involve some mix of ideas about increased school-site management and autonomy, more flexibility and variability in the organization of schools, greater teacher participation in school decision making, decentralization of decision making, and deregulation of schooling. While each of these ideas, and others, properly belong in discussion on restructuring schools, rarely if ever are they related in any clear way to improved school productivity or student acquisition of skills.

Within the school itself, educational leaders are seeking better ways to engage students and staff in the teaching and learning process and to enhance their shared sense of community and common purpose. Thus, in the pursuit of better outcomes for children, leadership for enhanced collaboration is needed, both in terms of the external linkages between schools and social agencies and in terms

of internal linkages within the school's walls between students, teachers, administrators, and others (Lugg and Boyd 1993).

Participatory Leadership and Teacher Job Satisfaction

One of the earliest explicit definitions of job satisfaction is any combination of psychological, physiological, and environmental circumstances that causes a person to say, "I am satisfied with my job" (Hoppock 1935). For the educational setting, Hoy and Miskel (1987) defined job satisfaction as a present- or past-oriented affective state that results when educators evaluate their work roles.

In addressing teacher job satisfaction, scholars have generally made the distinction between intrinsic and extrinsic influences. Intrinsic factors are such things as student traits contrived over the classroom environment and class size. Extrinsic factors include the school's governance regime, salary, and benefits (Keith 1996). Ethridge et al. (1995) found that bureaucratic factors such as the hierarchy of authority in schools that denies teachers participation in shared decision making produce low levels of job satisfaction and interrupt a pattern of improved student achievement. Also, according to Likert and Likert (1976, 1986), participation allows teachers to have input in goal development. Woods (1984, 63) described participatory management as a collaborative, consensus-building approach

between subordinates and superordinates who work together as equals to "share and analyze problems, generate and evaluate alternatives, and attempt to reach agreement on decisions."

Work motivation is also consistently correlated to job satisfaction. Motivation factors, needs, and expectancy contribute to job satisfaction (Anderson and Iwanichi 1984). Also, as the organization of the school's climate becomes more participative, the level of teacher job satisfaction increases (Miskel, Fevurly, and Steward 1979). The quality of teacher administration and the quality of leadership correlates highly with teacher job satisfaction. The greater participation teachers have in decision making, especially concerning instructional methods, the greater the job satisfaction.

Trout and Martin (1994) and Secumski-Killigian (1993) presented findings of a study that examined faculty/ staff perceptions of their principal leadership styles, and results showed a positive correlation between the teachers' perceptions of shared-governance behaviors and satisfaction with their work environment. Verdugo et al. (1995) conducted a study that involved various programs of school reform that failed because they neglected to consider the role of legitimacy as an intervening factor as a school moves from a strict bureaucratic to a community governance regime. The results showed that the greater the involvement of teachers in evaluation and assessment of school programs,

the more likely that they would give legitimacy to their governing regime. The greater also would be the teachers' sense of community and job satisfaction.

Teacher Job Satisfaction and Student Achievement

The impact of teacher job satisfaction on student achievement is of significant interest in this study. Ross (1997) did a comparative case study of teacher participation in planning in three types of decentralized schools (site-based management). She concluded that by involving teachers in school planning decisions that directly impact their work, schools may see an increase in teacher morale, a greater sense of professionalism, and improvement in the teaching and learning process. Benefits for students include increased student achievement and responsibility. The biggest benefits, however, appear to be related to opportunities for teachers to work collaboratively. Dixon (1981) studied the relationship of elementary school principals' leadership performance to reading achievement of students in two California counties. The study concluded that there is a consistent, although slight, trend supporting the hypothesis that where internal congruency exists between principal and teachers, there will be higher reading scores. Also, Reed (1987) studied organizational characteristics, principal leadership behavior, teacher job satisfaction, and their effect on student achievement. The

results indicated that teacher perceptions govern teacher behavior, which in turn affects student achievement.

Another viewpoint on this topic includes Malone's (1980) investigation of the use of human relations by the elementary school principal and its relationship to teacher morale and teacher effectiveness. According to the data gathered from the questionnaires used, there were no relationships found to exist between the use of human relations by the elementary school principal and teacher morale, teacher effectiveness, and pupils' reading test scores. Also, Owens (1988) studied the relationship of teacher self-concept and job satisfaction to student achievement in Grades 1 and 4. The researcher concluded that there was no relationship between teachers' level of job satisfaction and student achievement in first and fourth grades.

Socioeconomic Status and Student Achievement

There appears to be a preponderance of research that supports the conclusion that there is a correlation between SES and student achievement. According to Kent (1996), Ladner (1989), and Gibson (1989), achievement was lower for students within the low socioeconomic status. Bolgiana (1984) examined relationships between socioeconomic status, self-esteem, and student achievement. She concluded that socioeconomic level of the family did have a significant effect on achievement; as SES level increased, achievement

and self-esteem also increased. In addition, a statistically significant correlation was found between achievement and self-esteem.

Solomon et al. (1996) studied and compared teachers' assumptions about students and effective teaching practices in low- and high-poverty schools. His findings confirmed earlier studies in showing that students in poor communities generally receive less engaging kinds of education and that teachers in such schools see the school climate as less positive and stimulating and themselves as having less influence. Teachers at these schools also were less trusting of students and more skeptical about their abilities. However, Eidson's (1991) study on test scores and the variable of socioeconomic status found that parental status is not a good predictor of achievement in mathematics and language arts.

Summary

The purpose of this study was to investigate the impact of a school academic improvement treatment model emphasizing participatory leadership and other selected variables on teacher job satisfaction and student achievement. This chapter began with a review of the literature on leadership and progressed to the examination of leadership in a participatory management education environment. It was strongly suggested in the research that the collaborative

nature of participation is a key characteristic in generating support for this treatment model. Further, it was suggested from this review of the related literature that a collaborative style of leadership used within a school setting has some positive impact on the job satisfaction of teachers and on the achievement of students.

Chapter III provides the theoretical framework for this study. This chapter includes the definition of terms, relationship of the variables, the null hypotheses, and the limitations of the study.

CHAPTER III

THEORETICAL FRAMEWORK

Introduction

The purpose of this study was to investigate the impact of a school academic improvement treatment model emphasizing participatory leadership of principals and other selected variables on student achievement and teacher job satisfaction. This chapter contains the theoretical framework of the research, which includes definition of the research variables, a discussion of the relationship among the variables, and the null hypotheses. Can a significant change in leadership style be mandated?

Definition of Terms

The definitions which follow explain how specific terms were used in this study.

1. Leadership style: The manner/behavior of preference which leaders use when they deal with people from the perspective of different cognitive styles; examples are autocratic, participatory, and laissez-faire (Association for Supervision and Curriculum Development 1987). In this study, leadership style was assessed using the Profile for

Assessment of Leadership (PAL). Items 1-88 were used; these items addressed support of collaboration, positive communication, and behaviors that support positive relationships.

2. Participatory leadership: The process where procedures are established that provide the opportunity for the faculty to have appropriate input on decisions that may be important to them (Drake 1994). It is also described in the literature as shared decision making (Strusinki 1990), quality circles (Barrick and Alexander 1987), democratic leadership (Dissner et al. 1990), and management by objectives (Reddin 1970). Participatory leadership was assessed by leadership style scores from the PAL.

3. Teacher job satisfaction: The feelings that teachers have about their job involvement, morale about the school environment, and/or the pleasure they have at being part of the school staff as defined on the PAL. In this study, Items 89-99 on the PAL instrument were used to assess teacher job satisfaction. These items asked such questions as how staff members enjoy working at the school and how important staff members felt their opinions were.

4. Iowa Tests of Basic Skills (ITBS): The standardized test used to measure the academic achievement of students for this research.

5. Parental involvement: Refers to activities developed in the treatment schools that were based on an expressed need and/or desire of the school community. These

activities were designed to promote involvement of the parents/community in the instructional activities within the schools.

6. Percentile rank: Given a raw score, the percentile rank enables one to determine the percentage of individuals in the standardization group who received the same or a different score.

7. Normal curve equivalency (NCE) scores: NCE scores are scores which are a type of standardized test scores with a mean of 50 and a standard deviation of 21.06.

8. School improvement academic treatment model: Treatment that included participatory leadership in the development of school site plans with the mission to improve student achievement as measured by standardized test scores. The plans were personalized to the needs of each school community in addressing the mission with in-depth involvement of the school staff, parents, students, and other community members.

9. Profile for the Assessment of Leadership (PAL): The PAL was developed in 1983-84 by a committee of principals, assistant principals, teachers, and central office administrators under the direction of the DeKalb County School System (DCSS) Department of Research and Evaluation. It was piloted, field tested, and validated in 1984 and 1985. A cluster of items related to climate was added in 1987. The PAL's use for principals was validated after the

field test phase in 1985-86 and after the revisions in 1991 and 1994.

10. School community: This term includes the school staff, parents, students, and other community members.

11. Leadership experience: The number of years a principal has served in the position of principal.

12. Control schools: The eighteen schools that did not receive the treatment in this study.

13. Reading 96, 97: The ITBS reading comprehension test scores for 1996 and 1997.

14. Socioeconomic status (SES): For this study, the percentage of students on free and reduced lunch status within a school.

15. Race: In this study, the race (black or white) of the principals involved.

16. Student achievement: Defined in this study as the reading gain NCE score.

Relationship of the Variables

The independent variables in this study are treatment schools, control schools, reading scores, free lunch status, and the race, gender, leadership experience, and leadership style of the principal. The dependent variables are student achievement and teacher job satisfaction. Figure 1 displays the relationship of the variables.

THEORETICAL FRAMEWORK

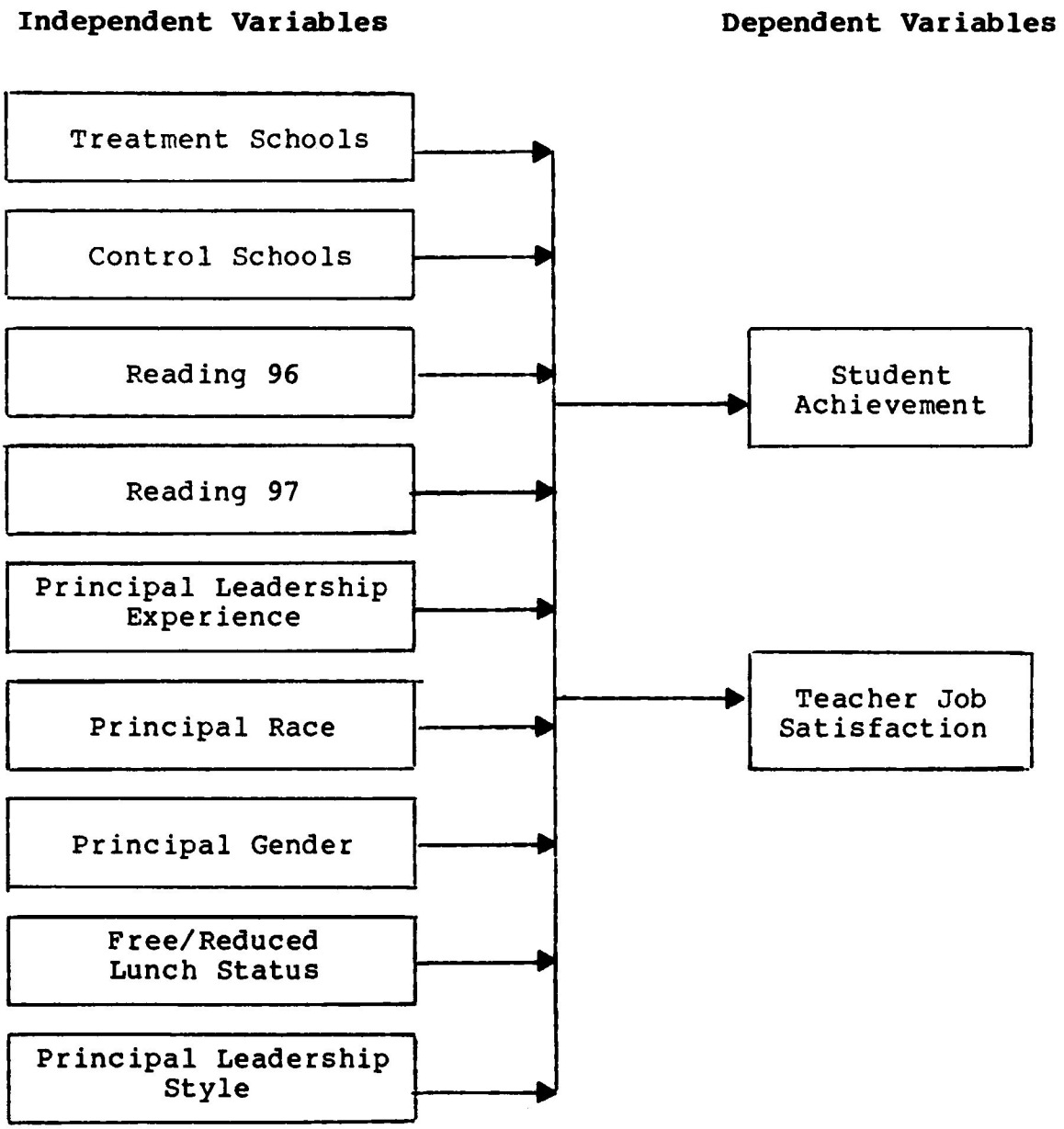

Fig. 1. Relationship among the variables

This study involved the examination of the impact of a school academic improvement model emphasizing participatory leadership and other selected variables on student achievement and teacher job satisfaction in twelve treatment schools that have historically scored low on standardized tests versus eighteen control schools of similar characteristics that did not receive the treatment. The principals in the treatment schools were required to implement a participatory leadership style in the development of school improvement plans that increase student achievement, as measured on the ITBS (reading comprehension and total mathematics). The PAL was used to assess teacher job satisfaction and principal leadership style. Data from these instruments came from the 1995-96 school year prior to the mandate and the 1996-97 school year after the mandate.

A key mission of schools is to provide effective academic instruction. The principal is the key leader within the school who is addressing this mission. How the principals and teachers are able to effectively organize and coordinate instruction within the school shapes not only the learning experiences but also the environment in which the work is conducted. Effective principals in high-achieving schools develop a sense of teamwork within the schools (Heck and Marcoulides 1993). This coordination involves the sharing of decisions and participation of the teachers and principals in establishing goals. The effective management

of schools involves leadership skills in both the personal and institutional arena. This includes improving teacher morale and motivation, raising the quality of job satisfaction, and obtaining the highest productivity and performance from students and staff (Conrath 1987).

The treatment schools are those school communities that developed a school academic improvement treatment model emphasizing participatory leadership. The control schools are those schools that did not receive the treatment model. With the exception of three control schools, all of the schools have a high population of students on free/reduced lunch status with a range of 50 to 99.9 percent. The three exceptional control schools had a free/reduced lunch range of 24 to 55 percent.

All of the schools in this study had experienced either a consistently low school performance test score profile or a declining test score profile. The impact of the treatment model on student achievement and teacher job satisfaction was of interest in this study. Information on the impact that the role of race, gender, and years of experience of the principal has on his/her staff's job satisfaction and student achievement, if any, could also be helpful. Did free lunch status impact student achievement within the treatment schools? These are some of the areas examined in this study. The results have a major impact on leadership directives for the school system and beyond.

Null Hypotheses

The following null hypotheses were developed for testing in this study.

1. There is no significant difference between reading gain NCE scores in the treatment versus the control schools.

2. There is no relationship between reading gain NCE scores and teacher job satisfaction in the treatment schools versus the control schools.

3. There is no significant relationship between reading gain NCE scores and reading 1997 scores in the treatment schools versus the control schools.

4. There is no significant relationship between reading gain NCE scores and reading 1996 NCE scores in the treatment schools versus the control schools.

5. There is no significant relationship between reading gain NCE scores and principal's experience in the treatment schools versus the control schools.

6. There is no significant relationship between reading gain NCE scores and principal's race in the treatment schools versus the control schools.

7. There is no significant relationship between reading gain NCE scores and principal's gender in the treatment schools versus the control schools.

8. There is no significant relationship between reading gain NCE scores, free lunch status of the school,

and principal's leadership style in the treatment schools versus the control schools.

9. There is no significant relationship between reading gain NCE scores and each of the following variables: principal's leadership style, teacher job satisfaction, treatment, and free lunch status.

Limitations of the Study

Limitations recognized for this study were the following:

1. Only one school system was involved in the study.

2. Only twelve low-achieving schools were involved in the study.

3. In three of the schools, new principals were assigned for the year of the treatment implementation.

4. The research period of the study was limited to only one year.

Summary

Chapter III has provided the theoretical framework and discussed the relationship between the independent and dependent variables. Definitions of terms, null hypotheses, and limitations of the study were also presented.

Chapter IV discusses the methods and procedures used within this study. This chapter includes the research

design, a description of the setting, the sampling procedures, a description of the instruments, the data collection procedures, and the statistical applications.

CHAPTER IV

METHODS AND PROCEDURES

Introduction

The purpose of this study was to investigate the impact of a school academic improvement treatment model emphasizing participatory leadership of principals and other selected variables on student achievement and teacher job satisfaction. In this chapter the research design, a description of the setting, the sampling procedures, a description of the instrument, and the data collection procedures are discussed. After the description of the instrument used in this study, the procedures for data collection are explained. The chapter also describes the statistical applications employed in the study.

Research Design

This study represented an attempt to determine the impact of a school academic improvement treatment model on student achievement and job satisfaction. An ex post facto research design involving a descriptive survey method was used in this investigation.

There was a control group and a treatment group. Twelve schools were selected to receive the treatment. The selection of these treatment schools was based on their history of low and/or declining student academic performance on the Iowa Tests of Basic Skills (ITBS). Eighteen schools with similar characteristics to the treatment schools were selected to be the control schools. Three of the control schools had a lower but growing percentage of the student population on free or reduced lunch, with test scores similar to the treatment schools.

The baseline data for student achievement was determined by recording the reading comprehension results on the ITBS taken in the spring of 1996. Student achievement data on the ITBS were obtained from the Department of Testing within the DeKalb County School System (DCSS). Test scores were studied from the last three consecutive school years, prior to 1997, to determine status for participation in this study. Section IX, School Climate, on the Profile for Assessment of Leadership (PAL) was used to assess teacher job satisfaction. In addition, Items 1-88 on the PAL instrument were used to assess leadership style. Responses were collected, evaluated, classified, and subjected to statistical analysis.

Setting

The DeKalb County School System is the largest school system in Georgia, with a student population of nearly 94,000 attending 80 elementary schools, 11 middle schools, and 19 high schools. DeKalb is one of the 23 counties that comprise metropolitan Atlanta, Georgia. The DCSS elementary schools serve students in prekindergarten through Grade 7, with configurations differing in some schools. The race of the student population is approximately 78 percent black, 22 percent white, and 10 percent other ethnic groups. Students within the school system come from a variety of backgrounds and have varied academic needs.

A primary mission of the DeKalb County School System for the 1996-97 school year was to increase student achievement as measured by standardized test scores. With the exception of three schools in the control group, the schools selected to participate in this study were schools that had a history of poor standardized test performance and/or a steady decline in test performance by their students in the last five years. Within these schools, the reading NCE gain scores on the ITBS for the 1996 spring testing were 36.4 through 49.0. The three schools within the exception had NCE reading gain scores of 50+. All of these schools were examples of schools that were experiencing a steady test performance decline in the last five years. They were

generally characterized by limited parental involvement, high student mobility, and/or a low socioeconomic level as evidenced by a large or increased percentage of students on free and reduced lunch. Also, there was a history of continuous requests for teacher transfers in many of the selected schools, which could suggest teacher job dissatisfaction and/or a school climate that has a low morale.

School Selection Procedures

Twelve schools within the DCSS with historically some of the lowest student achievement test scores were identified to participate in the treatment group. Eighteen schools were selected to be in the control group. Fifteen of the control schools had similar characteristics to the treatment group. Three of the control schools were higher achieving schools with a higher socioeconomic status (SES), as determined by the number of students on free and reduced lunch. However, these three schools had shown a decline in test performance as they developed an increase in their free/reduced lunch student population.

The SES of each school was determined by dividing the total number of students receiving free or reduced lunch by the total population of the student body. Within the schools, all of the students were involved in the study with the exception of special education students and students coded ESOL because of major English language limitations.

All of the certified staff members were administered the PAL, an instrument which assesses principal leadership skills, to determine teacher job satisfaction.

Working with Human Subjects

Anonymity and confidentiality were used for all the information on the schools involved in this study. Permission was granted by the school system to conduct this study. Data for the study were gathered from the DCSS Divisions of Personnel, Testing, and Research and Evaluation.

Description of the Instruments

The Profile for Assessment of Leadership (PAL) was developed in 1983-84 by a committee of principals, teachers, and central office administrators under the direction of the DCSS Department of Research and Evaluation. It was piloted, field tested, and validated in 1984 and 1985. A cluster of items related to school climate was added in 1987. The competency cluster pertaining to personnel evaluation was revised in 1990 to reflect the principal's role in the state evaluation process. Also in 1990, the entire instrument was edited to address principals only. It was revised in 1994 to reflect the importance of instructional leadership. The PAL's use for principals was validated after the field-test phase in 1985-86 and after the revisions in 1991 and 1994.

The school climate segment of the PAL was used to determine teacher job satisfaction (PAL 1995).

For the purposes of this study, Section IX, School Climate, Items 89-99, of the PAL were used to assess teacher job satisfaction. These items deal with enjoyment of work, reception of opinions, school pride, and student expectations. Also, Items 1-88 were used to assess principal's leadership style. These items deal with staff collaboration, communication, professional improvement, promotion of positive relationships, and conflict management.

The ITBS standardized test was produced by Riverside Publishing Company, a division of Houghton-Mifflin Company (ITBS 1994). The ITBS test levels range from 5 to 14, which correlates to approximate chronological ages within grade levels. One of several subtests, reading comprehension, was used to measure students'/schools' growth in achievement. The validity and reliability of the ITBS were established through the University of Iowa with the Riverside Publishing Company (ITBS 1994). The validity and reliability are in accor-dance with the appropriate standards. According to the publishers, the validity of the testing is also a function of the local testing administration process. This includes carefully following the administration procedures and adhering to proper test security.

Data Collection Procedures

The ITBS was used to measure student achievement. The ITBS is a standardized test of basic skills in reading and mathematics. The test is administered in the spring of each school year to students within the elementary schools in Grades 1-7. The test measures objectives that students should have mastered for their assigned grade level.

The PAL is administered to school staffs in February of each school year. The PAL is used to assess leadership performance of the principals, as rated by the teachers. The DCSS Divisions of Testing and Research and Evaluation provided the student test data, free/reduced lunch status, and the principal PAL data for this study. The DCSS Division of Personnel provided the demographics of the principals for the schools involved in this study.

Statistical Applications

This study examined the impact of a school academic improvement treatment program model emphasizing participatory leadership and other selected variables on student achievement and teacher job satisfaction. The nature of the design for this experiment was a quasi-experimental action study. There was no random assignment of schools into the control group or the treatment group. The assignment to these groups was based on the characteristics as outlined in this chapter.

The Pearson r correlation was used on each independent and/or intervening variable to correlate with the dependent variables. The independent variables are treatment schools, control schools, reading 97, reading 96, principal's race, gender, and years of experience, and free lunch status. The dependent variables are student achievement (reading gain score) and teacher job satisfaction. This process allowed the researcher to test the hypotheses of each change derived from an alignment of each independent and dependent variable.

A t test was conducted to determine the difference between the NCE gain in reading in the control schools versus the treatment schools. A factor analysis was conducted to determine the number of commonalities among the variables. The reason for the factor analysis was to determine which independent variables were most closely related to reading score gains and teacher job satisfaction.

Summary

This study was conducted in twelve selected treatment schools and eighteen control schools within the DeKalb County School System. The purpose of this study was to determine the impact of a school academic improvement treatment model emphasizing participatory leadership and other selected variables on student achievement and teacher job satisfaction. This was a descriptive study on a

selected group of schools. NCE scores were used on the ITBS so that scores could be averaged. Percentile ratings were used to compute the PAL data. Chapter V provides a detailed analysis of the data collected in this study.

CHAPTER V

ANALYSIS OF DATA

Introduction

The purpose of this study was to investigate the impact of a school academic improvement treatment model emphasizing participatory leadership of principals and other selected variables on student achievement and teacher job satisfaction. The data were gathered from the ITBS reading comprehension test reports from school years 1995-96 and 1996-97. Additional data were collected and generated from the job satisfaction segment of the 1997 PAL instrument. The findings of the data analyses are presented in tabular format and explained through the accompanying narratives. The ten hypotheses were reviewed and reports were developed based on these data to determine the acceptance or rejection of each null hypothesis with supporting notations. Student achievement and teacher job satisfaction were the dependent variables. The independent variables were the treatment schools, control schools, free lunch status, principal's race, gender, and years of experience, and leadership style.

The treatment schools were the twelve lowest performing elementary schools in the DCSS. These schools

were provided a treatment developing an academic school improvement plan. The treatment schools used school-community collaboration in assessing academic status, diagnosing academic needs, and developing a personalized academic school improvement plan for each site. The control schools were eighteen schools which did not receive this treatment in the development of their school improvement plans. Thus, thirty schools participated in this investigation.

During the winter of 1996, these thirty DeKalb County elementary schools were selected by the researcher to participate in this investigation. Twelve schools comprised the treatment group. The eighteen schools which comprised the control group received no special treatment in the development of their school improvement plans. Collectively, the study included thirty principals and their respective teachers. Student test scores were used in the data compilation. The range of experience for the principals was from one year to fifteen years. There were eighteen female principals and twelve male principals. Of these principals, twenty-one were black and nine were white. The SES of the schools was determined by the number of students on free and reduced lunch. The range for SES in the thirty schools was 23.6 to 99.9 percent, with the majority of the schools having approximately 80 percent on free lunch.

With the exception of two schools, the control schools matched the treatment schools in SES, size, geographic location, ethnicity, and general academic performance. These two exceptions are schools that were numbered School 2 and 3 on the demographic table for control schools. These two schools were experiencing an increase in the low SES population with test scores similar to the test scores in the treatment schools.

Demographic Data

The tables which follow provide demographic data for the treatment group and the control group, respectively. The data in these tables include the following information on each school: SES and the principal's gender, race, and years of leadership experience. The schools are presented in numerical order for each group. The number assignments were given to each school to protect their identity, which is known only by the researcher.

Table 1 provides the demographic data collected in this study relative to the treatment schools. All twelve schools had a lower SES as indicated by the free lunch status. Percentage range for free lunch was from 89.7 to 99.9 percent. Six male and six female principals were leaders in the treatment schools. The ethnic composition of the treatment school principals consisted of two white and ten black principals. The principalship years of experience

Table 1.--Demographic Data of SES and Principal's Gender, Race, and Years of Leadership Experience for Treatment Group Schools

School	SES (Free Lunch Status)	Principal Gender	Principal Race	Principal Years of Exp.
1	99.9	Female	Black	1
2	99.6	Male	White	6
3	96.7	Male	White	11
4	88.9	Female	Black	7
5	83.4	Female	Black	10
6	99.9	Female	Black	2
7	98.3	Female	Black	15
8	99.9	Female	Black	8
9	99.6	Male	Black	10
10	90.9	Male	Black	12
11	89.7	Male	Black	13
12	97.8	Male	Black	9

ranged from one to fifteen years, with the average being 7.8 years.

Table 2 provides demographic data collected in this study relative to the eighteen control schools. With the exception of four schools, all of the control schools had a free lunch percentage above 60 percent. There were seven male and eleven female principals in the control group. The ethnic composition of the control principals consisted of

Table 2.--Demographic Data of SES and Principal's Gender, Race, and Years of Leadership Experience for Control Group Schools

School	SES (Free Lunch Status)	Principal Gender	Principal Race	Principal Years of Exp.
1	75.8	Female	Black	1
2	23.6	Female	White	2
3	37.9	Female	White	7
4	66.7	Female	Black	11
5	59.7	Female	Black	4
6	81.0	Female	Black	7
7	89.5	Female	Black	7
8	89.5	Female	Black	3
9	86.4	Female	Black	10
10	55.1	Male	Black	13
11	85.4	Male	White	11
12	94.6	Female	Black	3
13	91.3	Female	Black	6
14	90.6	Male	Black	11
15	81.6	Male	Black	12
16	80.6	Male	White	9
17	93.5	Male	White	7
18	89.1	Male	White	10

twelve blacks and six whites. The range of principalship experience was one to thirteen years, with the average experience being approximately seven years.

Testing the Hypotheses

Hypothesis 1. There is no significant difference between reading gain NCE scores in the treatment versus the control schools.

Within this study, Hypothesis 1 was generated to assess the difference in the reading gain scores in the treatment schools versus the control schools. Table 3 shows a *t* test for the reading gain scores of the treatment and control schools.

Table 3.--Reading Gain Scores *t*-Test Results

Group	No.	Mean	Standard Deviation	*t* Value	Prob. Level
1 Control	18	-0.288	1.182		
				-2.77	.010*
2 Treatment	12	1.616	2.553		

*Significant at less than .05 level.

Table 3 reveals the difference between reading gain NCE scores in the treatment schools versus the control schools as measured by the ITBS. The mean reading gain

score for the control group is -0.288, which is substantially lower than that of the treatment schools (1.616). The *t* value is -2.77, which is significant at .010. The treatment schools made significantly higher reading NCE gain scores.

The relationship of the treatment group and the control group to principal leadership style, student achievement, and teacher job satisfaction was significant in this investigation and thus generated Hypotheses 1 through 8. Table 4 reveals the Pearson *r* correlation analysis of the independent and intervening variables and their relationship to principal leadership style, student achievement, and teacher job satisfaction for Hypotheses 1 through 8.

In table 4, the correlation matrix, the correlation coefficient for treatment is .4637, which is significant at the .05 level. This means that the treatment made a significant contribution to the reading gain NCE scores. This finding is supported by results of the *t* test shown in table 3. Also, in table 4 the correlation coefficient for principal leadership style in the treatment group is .8921, which is significant. Therefore, Null Hypothesis 1 is rejected.

Hypothesis 2. There is no relationship between reading gain NCE scores and teacher job satisfaction in the treatment schools versus the control schools.

Table 4.--Pearson Correlation Analysis of Reading NCE Gains with Principal Leadership Style, Teacher Job Satisfaction, and Demographic Variables

Independent/ Intervening Variables	Dependent Variables: Principal Leadership Style	Dependent Variables: Student Achievement (Reading Gain Score)	Dependent Variables: Teacher Job Satisfaction
Teacher Job Satisfaction	.8921**	-.0692	1.0000
Treatment 2/ Control 1	.8921**	.4637**	.0713
Reading Score 97	.2555	-.0375	.2353
Reading Score 96	.1970	-.4219*	.2403
Principal Years of Experience	-.2714	-.0092	-.2371
Principal Race	.1372	-.1286	.3136
Principal Gender	-.3041	.1956	-.1827
Free Lunch Status	-.1022	.3648*	-.1267
Principal Leadership Style	1.0000	.0897	.8921**

*Significant at less than .05.

**Significant at less than .01 (2-tailed).

The findings for Null Hypothesis 2 are based on the correlation matrix included in table 4. The correlation

coefficient of -.0692 shows the relationship between student reading achievement gain NCE scores and teacher job satisfaction, which is not significant at the .05 level. Hence, Null Hypothesis 2 is accepted.

Hypothesis 3. There is no significant relationship between reading gain NCE scores and reading 1997 scores in the treatment schools versus the control schools.

The findings for Null Hypothesis 3 are based on the correlation matrix included in table 4. The correlation coefficient of -.0375 shows the relationship between student reading gain NCE scores and the reading 1997 scores, which is not significant at the .05 level. Hence, Null Hypothesis 3 is accepted. This means that the treatment probably made it possible for the 1997 scores not to influence the gain scores.

Hypothesis 4. There is no significant relationship between reading gain NCE scores and reading 1996 NCE scores in the treatment schools versus the control schools.

The findings for Null Hypothesis 4 are based on the correlation matrix included in table 4. The correlation coefficient of -.4219 shows the relationship between student reading gain NCE scores and the reading 1996 scores, which is significant at the .05 level. Hence, Null Hypothesis 4 is rejected. This means that prior to the treatment, performance for the low-scoring students remained low and the high-performing students made gains.

Hypothesis 5. There is no significant relationship between reading gain NCE scores and principal's experience in the treatment schools versus the control schools.

The findings for Null Hypothesis 5 are based on the correlation matrix included in table 4. The correlation coefficient of -.0092 shows the relationship between student reading gain NCE scores and principal experience, which is not significant at the .05 level. Hence, Null Hypothesis 5 is accepted.

Hypothesis 6. There is no significant relationship between reading gain NCE scores and principal's race in the treatment schools versus the control schools.

The findings for Null Hypothesis 6 are based on the correlation matrix included in table 4. The correlation coefficient of -.1286 shows the relationship between student reading gain NCE scores and principal's race, which is not significant at the .05 level. Hence, Null Hypothesis 6 is accepted.

Hypothesis 7. There is no significant relationship between reading gain NCE scores and principal's gender in the treatment schools versus the control schools.

The findings for Null Hypothesis 7 are based on the correlation matrix included in table 4. The correlation coefficient of .1956 shows the relationship between student reading gain NCE scores and principal's gender, which is not

significant at the .05 level. Hence, Null Hypothesis 7 is accepted.

Hypothesis 8. There is no significant relationship between reading gain NCE scores, free lunch status of the school, and principal's leadership style in the treatment schools versus the control schools.

The findings for Null Hypothesis 8 are based on the correlation matrix included in table 4. The correlation coefficient of .3648 shows the relationship between student reading gain NCE scores and student free lunch status, which is significant at the .05 level. Hence, Null Hypothesis 8 is rejected. Since SES was determined by free lunch status, this means that low SES (high free lunch status) schools made higher gains than high SES (low free lunch status) schools.

Hypothesis 9. There is no significant relationship between reading gain NCE scores and each of the following variables: principal's leadership style, teacher job satisfaction, treatment, and free lunch status.

Hypothesis 9 was generated to conduct a factor analysis of the relationship between the reading NCE gain scores and each of the following variables: principal's leadership style, teacher job satisfaction, treatment, and free lunch status. In order to test this hypothesis, a factor analysis was conducted on the selected dependent and independent variables. The results are shown in table 5.

Table 5.--Factor Analysis: Reading NCE Gains in Relation to the Treatment, Principal Leadership Style, Teacher Job Satisfaction, and Selected Variables

Rotated Factor Matrix	Factor	Score
Reading NCE Score 97	I	.96640
Reading NCE Score 96		.91417
Free Lunch Status		-.89775
Teacher Job Satisfaction	II	.95004
Principal Leadership Style		.94568
Principal Years of Experience		-.41048
Reading Gain Score	III	.92142
Treatment/Control		.65628
Principal Race	IV	.32899
Principal Gender		.82378

As shown in table 5, Factor I consists of factor scores for reading NCE 1997 (.96640), reading NCE 1996 (.91417), and free lunch status (-.89775). NCE gain scores are not placed in this factor, indicating that the gain scores are not associated with the 1996 or 1997 scores. Therefore, the null hypothesis with respect to NCE gain scores and these variables is accepted. The factor of free lunch status (SES) is negative, which indicates that the higher free lunch percentage schools (lower SES) performed lower on reading NCE 1996 and 1997 scores.

Factor II consists of factor scores for teacher job satisfaction (.95004), principal leadership style (.94568), and principal years of experience (-.41048). The NCE gain

scores are not placed within these factors, indicating that the gain scores are not associated with principal leadership style, principal years of experience, and teacher job satisfaction. Therefore, the null hypothesis with respect NCE gain scores and these variables is accepted. The negative coefficient for principal years of experience means that teacher job satisfaction was higher in schools with low principal experience. Treatment and free lunch status of schools are not placed in the same factor and therefore are not associated.

Factor III consists of factor scores for reading NCE gain score (.92142) and the treatment schools (.65628). The results indicated that they are in the same commonality and independent of the other factors. In other words, the bonding between reading NCE gain scores and the treatment is the strongest in Factor III, since reading NCE gain scores are not bonded with free lunch status of schools, teacher job satisfaction, or principal leadership style, which are placed in other factors. This means that the null hypothesis for reading NCE gain scores and treatment is rejected.

Factor IV consists of factor scores for principal race (.82899) and principal gender (.82378), which are independent of the other variables. Hence, the null hypothesis is accepted, indicating that there is no

relationship between NCE reading gain scores and principal gender or race.

Therefore, based on the factor analysis, Null Hypothesis 9 is rejected for reading NCE gain scores and treatment and accepted for all other variables.

Summary

This investigation was conducted in thirty elementary schools in the DeKalb County School System to determine the impact of a school academic improvement treatment model emphasizing participatory leadership and other selected variables on student achievement and teacher job satisfaction. Demographic information on the participating schools was presented. The results of testing the hypotheses indicate that NCE reading gains are significantly related to the treatment and free lunch status of schools in the Pearson *r* correlation analysis. In the factor analysis, NCE reading gain was only related to treatment in Factor III. The results of the *t* test suggest that the treatment schools made significantly higher reading NCE gain scores.

Chapter VI presents and discusses the findings, conclusions, implications, and recommendations of the study. The analysis of the data in Chapter V serves as a basis for the discussion presented in Chapter VI.

CHAPTER VI

FINDINGS, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

The purpose of this investigation was to study the impact of a school academic improvement treatment model emphasizing participatory leadership and other selected variables on student achievement and teacher job satisfaction. The design for this study was a quasi-experimental action study. There was no random assignment of schools into the treatment or control groups. The assignment to these groups was based on the characteristics as outlined in Chapter IV. This chapter discusses the findings, conclusions, implications, and recommendations based on the results from the research conducted.

Findings

The testing of the hypotheses identified four significant findings. A summary of the significant findings of this study is presented in this section. The significant findings relate to Hypotheses 1, 4, 8, and 9. The nine research questions have been answered through the testing of the null hypotheses. The findings for each null hypothesis

have been summarized relative to the specific variables included in each hypothesis. The variables are: (1) treatment schools; (2) control schools; (3) reading 97; (4) reading 96; (5) principal race, gender, and years of principalship experience; (6) reading gain; (7) teacher job satisfaction; and (8) principal leadership style. The impact of the dependent variables on the independent variables within the selected sites has been described in the findings.

Hypothesis 1 was rejected. There is a statistically significant difference between reading NCE gain scores in the treatment group versus the control group. In the treatment schools, where participatory leadership was implemented, there were higher reading NCE gains than in the control schools. An examination of the treatment schools identified practices that were not in the control schools and could further account for this finding. Within the treatment schools there was collaborative planning that involved the school's staff, community, and students. The treatment schools identified and continuously emphasized the common focus of increasing student achievement These schools developed and implemented specific practices such as weekly/daily scheduled grade-level team planning sessions, routine benchmark assessment on identified instructional needs, and parental involvement programs that actively promoted parental involvement in the instructional program.

There was also continuous monitoring of this process by the principal and the project director. Adjustments were made as needed, and communication among the participants was constant. All activities were always related to the mission to maintain focus.

Hypothesis 2 was accepted. The test of Hypothesis 2 verified that there is no statistically significant relationship between reading NCE gain scores and teacher job satisfaction in the treatment group versus the control group. This finding suggests that teachers do not have to be experiencing job satisfaction in order to positively impact student achievement. A possibility for this finding in this study is the time of year that the teacher job satisfaction assessment was administered. This assessment was conducted prior to the staff receiving the results of their students' achievement performance on the ITBS. Sometimes, there is stress and apprehension in the teachers as they anticipate test results for their pupils. This could produce anxiety and negatively impact their assessment of teacher job satisfaction.

Hypothesis 3 was accepted. There is no statistically significant relationship between reading gain NCE scores and reading 1997 scores in the treatment group versus the control group. The schools with the lowest reading scores appeared to have made the most gains in reading. Prior to the treatment, these schools had historically

remained low in reading. Within the treatment group, there was the collaboration of total school community in the development of a school improvement plan within the organization. Perhaps the treatment in this study had some impact on the increase in the reading performance. Also, it is quite reasonable to expect that low-scoring schools would achieve some gain, due to the nature of the focus of attention on increased student achievement. The principals' role in the treatment involved promoting student learning and stimulating teachers and parents to help identify serious educational problems the school was encountering while attempting to educate all students.

Hypothesis 4 was rejected. The test of this hypothesis revealed a statistically significant relationship between reading gain NCE scores and reading 96 NCE scores in the treatment group versus the control group. This means that the reading scores in those schools with the lowest scores in 1996 made the greater gains in 1997. The principals of the treatment schools involved teachers, students, and the community in critical decisions about instruction. Within the control schools there was very limited to no involvement of this total group in instructional planning. Thus, the treatment emphasizing participatory leadership may have had an impact on student achievement.

Hypothesis 5 was accepted. The study revealed that there is no statistically significant relationship between

reading gain NCE scores and principal's experience in the treatment group versus the control group. The research found that the impact of leadership experience on student achievement was not significant.

Hypothesis 6 was accepted. The research revealed that there is no statistically significant relationship between reading gain NCE scores and the principal's race in the treatment group versus the control group.

Hypothesis 7 was accepted. There is no statistically significant relationship between reading gain NCE scores and principal's gender in the treatment group versus the control group. The results of this study suggest that a primary difference in effective and ineffective schools is the principal's skills, regardless of gender.

Hypothesis 8 was rejected. The results of this study show that there is a statistically significant relationship between reading NCE gain scores and free lunch status of schools in the treatment group versus the control group. Primary to all efforts in the treatment schools, the mission of improving achievement in a participatory (collaborative) leadership style was clearly communicated to the entire school community. Also, there was a strong parental involvement component in the promotion of the instructional program. There were concentrated efforts directed toward identifying effective teaching strategies to address the specific needs at the individual school sites. Surveys were

given to the school's staff, parents, students, and community members for them to identify areas that they felt would assist them in helping their school to achieve the mission. There was a strong cycle of clearly stated mission, collaborative plan development and implementation, and focus on results.

Hypothesis 9 was accepted for the variables of teacher job satisfaction, principal leadership style, and free lunch status. The results of the study revealed that there is no statistically significant relationship between reading NCE gain scores and the variables of teacher job satisfaction, principal leadership style, and free lunch status. This hypothesis examined a comparison of the variables of teacher job satisfaction and free lunch status and the relationship each has on the reading NCE gain. In the results, each of these variables was placed in a different factor without the inclusion of the NCE reading gain score factor. The graphic dispersion of these factors did not group them together and thus revealed that there was no significant relationship.

The results of this investigation showed that reading NCE gain and the treatment had a stronger bond than the other variables. Within the treatment schools, heavy emphasis was placed on encouraging participation for all involved (principals, teachers, parents, students, and the community) in identifying school needs and developing and

implementing school academic improvement plans that were specific to the needs of the school community. The mission was clear and the focus was direct. In Hypothesis 9, the study revealed that there was a significant relationship between reading NCE gain scores and the treatment. Null Hypothesis 9 was rejected for this relationship.

In summary, four of the nine null hypotheses of this investigation were statistically significant. Those schools that implemented the treatment showed higher reading NCE gain scores on the ITBS than those schools that did not. The schools with the lower reading NCE gains in 1996 made greater reading NCE gains in 1997 after the treatment. It appears that the higher the free lunch status of the schools (lower SES), the greater the tendency for schools to make higher gains in reading after the treatment.

Conclusions

The conclusions in this study are based on a thorough statistical analysis of the data as applied to the null hypotheses and research questions. A brief summary of the insignificant and significant findings and of the conclusions is presented in this section.

There is a significant difference between the reading NCE gain scores and the principal leadership style in the treatment schools versus the control schools. Therefore, Null Hypothesis 1 was rejected. The treatment schools

made higher gains than the control schools. Within the treatment schools, the principals practiced higher participatory leadership as compared to the control schools. This implies that the treatment and monitoring of this practice may have assured a strong implementation.

It seems that the principal's leadership may have some impact on student achievement. Within this study, the participatory process was a major part of the treatment and allowed for staff, parent, and student involvement in the planning of the treatment for each individual school site. This treatment allowed all parties to be involved in the assessment, diagnosis, planning, implementation, and monitoring of their school's plan for academic improvement.

Null Hypothesis 2 was accepted. The investigator found that teacher job satisfaction did not significantly impact student achievement. This finding suggests that when school leaders focus on the primary mission of student achievement, they need not feel that they must base key decisions on whether or not teachers are happy at work. This is not to suggest that teacher satisfaction is unimportant, because a wholesome work environment does have its benefits. Also, logic dictates that when teachers are positive about their jobs, the climate and conditions in the classroom will also be improved. However, as school leaders look to improve academic achievement, teacher job satisfaction should not direct this mission. Efforts to involve

teachers in the decision-making process could also provide opportunities for them to include ideas that may also promote job satisfaction as well as meet identified missions.

The results of this study revealed that Null Hypothesis 3 was accepted. There was no significant relationship between reading gain NCE scores and reading gain 1997 scores in the control schools and the treatment schools. The treatment schools made higher gains than the control schools. This is a situation which has not historically been the case. In past years, the lower achieving schools always made the lower gains. This finding implies that the treatment made the significant difference for the lower achieving schools.

The researcher found that the schools in the treatment group made significantly higher reading NCE gains than the control schools, which caused the rejection of Null Hypothesis 4. This finding also suggested that the treatment was the critical factor that did impact student achievement. When one considers that the treatment schools historically had low test scores and, despite all previous efforts, these scores generally remained low or regressed, such treatment components as principal focused leadership, diagnostic assessment of school academic needs, collaborative development of the school's academic program based on needs, identification and implementation of effective teaching strategies, and planned involvement of parents in

promoting the academic program appear to have positively impacted student achievement.

The investigator found in Null Hypotheses 5, 6, and 7, examining the race, gender, and years of experience of a principal, that these demographic variables did not significantly impact student achievement. Each of these hypotheses was accepted. The results imply that these characteristics of the principal are not major determinants of principal effectiveness.

The researcher found a significant difference between reading gain NCE scores and principal leadership style in the treatment schools. The schools with the greatest percentage of students on free lunch (low SES) made the greatest reading gains. These were also the treatment schools that implemented the participatory leadership style. Again, the implication is that the treatment must have made a difference. This resulted in the rejection of Null Hypothesis 8.

When a comparative analysis was conducted on the relationship of reading gain score and the variables of principal leadership style, treatment, teacher job satisfaction, and free lunch status, all of these relationships were not statistically significant with the exception of treatment. There was a significant relationship between the treatment and the reading gain score. The schools with the greatest reading score gains were the treatment schools.

Therefore, Null Hypothesis 9 was rejected for treatment and reading gain scores and accepted for all other factors.

Implications

The purpose of this study was to investigate the impact of a school academic improvement treatment model emphasizing participatory leadership and other selected variables on student achievement and teacher job satisfaction. The findings in this study may lead to ideas for improving practices employed to increase student achievement within schools. School leaders should consider, as they set out to improve their school instructional program, that a clear and focused mission must be communicated. When the school superintendent and the principal take the lead in communicating this mission to all parties, the meaning and commitment may become stronger. Significant is the involvement of all parties, including school staff, parents, students, and other community members.

It is important that all segments of the community be included in planning. The goal in this inclusion is to form a partnership between these individuals as the school's vision, mission, needs, desires, and plan of action are developed and implemented. When everyone is working with a common focus, the road to success becomes clearer.

Critical in this process is the identification of school needs and the development and implementation of

effective teaching strategies to address these needs. The study of the school's test history and school profile will provide important data to identify important patterns and significant changes, all of which will help in outlining the appropriate treatment.

Other implications for schools include the importance of identifying the areas that may be inhibiting student academic achievement and identifying and implementing methods to effectively address these inhibitors. We must also realize that addressing these needs may go beyond focusing only on the academics to include social, physical, and emotional needs.

Another implication of the study is the recognition that there is not one single prescription for improving academic performance in all schools. Different communities will have different needs. Personalizing the treatments to the needs of specific school sites will enhance success.

Two final implications involve leadership skills and expectations. First, leadership skill of the principal is more significant than the principal's race, gender, and years of experience. That is not to say that these factors do not have impact. However, the extent to which they may impact student achievement needs to be investigated further. Finally, expectations for all pupils should be high and focus on identifying and implementing strategies that promote success for all students in our diverse population.

Recommendations

The purpose of this investigation was to study the impact of a school academic improvement treatment model emphasizing participatory leadership and other selected variables on student achievement and teacher job satisfaction. Recommendations for practice and for further research can be made from the findings and conclusions.

Recommendations for Practice

The following recommendations based on the investigation are offered to administrators and instructional leaders in order to increase student achievement:

1. Teacher job satisfaction, though important, should not be the driving force in operating an effective academic school program.

2. School sites should be viewed individually as they are assisted in developing school improvement plans. School improvement plans should be specific to the needs of the school, employing effective strategies that are personalized to each school's needs in providing instruction.

3. The mission of the school must be clear and important to all. This is one reason why all parties must be involved in plan development and implementation for improving student achievement.

4. The socioeconomic status of a school should not dictate the academic expectations for the school.

5. The principal must be the driving force in the development of an effective plan to fulfill the mission. It is critical that the principals are given the latitude to be creative and be held accountable for school productivity.

6. Assessment procedures should be clear and directly connected to the mission.

7. School staffs must be charged with effectively identifying student needs and be provided adequate support from the school system in treating these needs.

8. A procedure should be established for continuous assessments throughout the process to monitor progress and make any needed adjustments in the treatment.

9. Schools should be encouraged to share successful strategies.

Recommendations for Further Research

Based on the findings of this study, the following recommendations for further research are offered:

1. A qualitative study should be conducted to document the day-to-day process of the treatment within a site to further narrow down the impact of various significant factors.

2. A study addressing some general components or concepts to be acknowledged by schools in developing treatments for school academic improvements should be considered.

3. A study to identify effective strategies for increasing teacher expectations from low-SES students would provide a significant contribution to the field.

4. A study to identify effective strategies for promoting successful parental involvement in increasing academic achievement within the school should be conducted.

Summary

Chapter VI gave a brief synopsis of the entire study. The findings were presented based on the analysis of data relative to the null hypotheses and research questions. Discussions of the investigator's conclusions, implications, and recommendations were also included in this chapter. It is the desire of the investigator that the findings and discussion in this study be used in improving the efforts of schools in addressing the mission of academic achievement.

APPENDIX A

TREATMENT SCHOOLS: READING COMPREHENSION
ITBS MEAN NCE SCORES

Treatment Schools	ITBS Mean NCE Scores		Gain	Free Lunch %
	Spring 1996	Spring 1997		
1	40.1	42.9	2.8	99.9
2	42.0	42.0	0.0	99.6
3	42.2	44.7	2.5	96.7
4	43.7	43.0	-0.7	88.9
5	42.8	46.2	3.4	83.4
6	44.0	40.4	-3.6	99.9
7	40.6	43.7	3.1	98.3
8	38.9	39.1	0.2	99.9
9	38.7	40.2	1.5	99.6
10	39.9	40.1	0.2	90.9
11	40.2	44.2	4.0	89.7
12	43.5	49.5	6.0	97.8
Mean	41.4	43.0	1.6	

APPENDIX B

CONTROL SCHOOLS: READING COMPREHENSION
ITBS MEAN NCE SCORES

Control Schools	ITBS Mean NCE Scores		Gain	Free Lunch %
	Spring 1996	Spring 1997		
1	45.6	46.5	0.9	75.8
2	65.6	64.5	-1.1	23.6
3	53.5	52.0	-1.5	37.9
4	49.1	46.9	-2.2	66.7
5	46.8	45.4	-1.4	59.7
6	44.2	43.5	-0.7	81.0
7	40.9	42.2	1.3	84.9
8	41.6	42.4	0.8	89.5
9	46.3	46.9	0.6	86.4
10	50.4	50.3	-0.1	55.1
11	42.4	42.5	0.1	85.4
12	46.6	47.1	0.5	94.6
13	41.8	42.6	0.8	91.3
14	47.2	44.1	-3.1	90.6
15	45.6	45.4	-0.2	81.6
16	45.5	45.7	0.2	80.8
17	41.3	41.7	0.4	93.5
18	42.6	42.1	-0.5	89.1
Mean	46.5	46.2	0.3	

APPENDIX C

PROFILE FOR ASSESSMENT OF LEADERSHIP

Competency I - Demonstrates Skills in Instructional Leadership.

I-A Supports collaboration among faculty and staff.

Descriptors

1. Maintains a positive attitude toward the educational process by making positive contributions to discussions.
2. Listens to opinions/recommendations of others.
3. Discusses opinions/recommendations different from his/her own.
4. Acts on these opinions/recommendations by considering them in decision making.
5. Uses input from Strategic Planning Committees in making decisions.
6. Supports the instructional action plans that are devised by the Strategic Planning Committees.
7. Encourages teamwork among faculty members.

I-B Communicates instructional expectations.

Key Points: Research addresses such strategies as wait time for student responses, success-oriented assignments, patterns for eliciting student response, and praise for meeting specific expectations.

Descriptors

8. Communicates to the staff the importance of holding high expectations of students.

9. Gives recognition and praise to students who meet high expectations.

10. Gives recognition and praise to staff members who meet high expectations.

11. Checks to determine if "high-expectation" strategies are evident in the classroom.

12. Provides individual or group support for those teachers who do not demonstrate "high-expectations" strategies.

13. Encourages teachers to acknowledge students who meet expectations.

I-C Models good personal communications skills.

Descriptors

14. Communicates vision, mission, goals as they directly relate to instruction.

15. Is accessible to discuss school or school-related matters.

16. Presents information effectively to small groups.

17. Presents information effectively to large groups.

18. Writes correctly.

19. Speaks correctly.

I-D Organizes and implements an effective communication system.

Descriptors

20. Identifies and uses abilities of staff members with public relations skills.

21. Provides the staff with the information needed to provide others with correct and timely facts about the school.

I-E Demonstrates positive work ethic through verbal and nonverbal communication.

Descriptors

22. Has good attendance.

23. Is prompt to work, appointments, and meetings.

24. Fosters a positive attitude by example.

I-F Assigns personnel within the school to make optimum use of their strengths.

Descriptors

25. Considers the needs of the organization.

26. Considers the capabilities of personnel involved.

27. Considers the distribution of work and equity in assignments.

28. Involves staff in assignments/reassignments.

I-G Protects student learning time.

Descriptors

29. Encourages staff input in choosing or limiting non-routine activities (e.g., assemblies, etc.) that interrupt the daily schedule.

30. Considers the needs of students, staff, and school when making routine schedules (lunch, duty assignments, master schedule, class schedules, etc.).

31. Initiates written communication reflecting the importance of protecting student learning time.

32. Communicates the importance of student learning time when addressing staff members.

33. Communicates to those affected how decisions relate to the protection of student learning time.

34. Interrupts time designated for instruction only for emergencies.

35. Ensures that non-teaching personnel perform services at a time that will be the least disruptive to classroom activities.

I-H Encourages effective use of instructional materials and equipment.

Descriptors

36. Provides adequate supply of materials.

37. Provides adequate supply of **working** equipment.

38. Provides up-to-date materials and equipment.

39. Establishes workable procedures for allocation of materials and equipment.

40. Encourages effective use of instructional technology.

I-J Encourages professional improvement of faculty.

41. Relates formal teacher evaluation process to the improvement of instruction in the classroom.

42. Shares instructional materials and information from professional meetings and/or readings.

43. Provides staff with research related to instruction.

44. Provides staff with opportunity to discuss instructional improvement or innovations based on research.

45. Encourages participation in professional meetings which focus on improving instruction.

46. Encourages participation in local and system wide staff development.

47. Aids staff members in implementing instructional ideas.

Competency II - The Principal Demonstrates Skill in Relating to Others.

II-A Demonstrates behavior which promotes positive relationships.

Descriptors

48. Demonstrates courtesy to me and to all others in my presence.

49. Demonstrates relevant knowledge of my career and circumstances that may affect my career and/or performance.

50. Demonstrates fairness.

51. Demonstrates impartiality to all ethnic groups.

52. Demonstrates tact when dealing with sensitive issues.

53. Demonstrates sensitivity for individual differences.

II-B Demonstrates ability to manage conflicts.

Key Points: Conflicts include student/student, student/administrator, teacher/teacher, teacher/administrator, teacher/parent, administrator/parent, staff member/administrator.

Descriptors

54. Recognizes existence of conflict.

55. Demonstrates sensitivity to the needs of those involved in conflict.

56. Analyzes conflict.

57. Assists those involved in developing a plan for resolution of conflict.

II-C Maintains integrity.

Descriptors

58. Is honest.

59. Avoids chastising someone in front of others.

60. Uses discretion in managing personal information concerning others.

61. Is dependable.

Competency III - The Principal Demonstrates Skill in Making Decisions.

III-A Is willing to make decisions.

Descriptors

62. Makes decisions within an acceptable time.

63. Distinguishes between the need for making a decision alone and the need for involving others in the process.

64. Communicates decisions directly to those affected.

65. Explains rationale for decisions to those affected.

III-B Makes sound decisions.

Key Points: The respondent may mark these on first-hand observation of behaviors or evidence (results) that sound decisions are made.

Descriptors

66. Investigates accuracy of information upon which decisions are made.

67. Makes every effort to ensure that decisions are fair and impartial to all affected.

68. Examines possible consequences of decisions before they are made.

69. Demonstrates willingness to reexamine decisions in light of new information.

Competency IV - The Principal Demonstrates Planning and Organizational Skills.

IV-A Organizes and maintains facilities or ensures that the administrator with this delegated authority organizes and maintains facilities.

Descriptors

70. Maintains clean facilities.

71. Maintains orderly facilities.

72. Maintains safe facilities.

73. Properly allocates facilities within limitations of size and design.

IV-B Implements procedures for ensuring that student behavior meets school expectations.

74. Communicates clear expectations for student behavior.

75. Establishes a procedure for teachers to use when referring students who do not meet behavioral expectations.

76. Consistently implements the procedure for referrals and feedback.

77. Ensures that teachers receive timely feedback on students referred.

Competency V - The Principal Demonstrates Skills in Implementing the Georgia Teacher Evaluation Program.

V-A Adheres to evaluation guidelines for teacher evaluation and/or ensures that the evaluator with this delegated authority adheres to evaluation guidelines.

Key Points: Teachers should be provided a standard orientation once and an update as instruments and/or procedures change. This orientation may be conducted by the principal at the local school or by a system-level person in a system-wide meeting.

Descriptors

78. Ensures that I have had a thorough GTEP orientation or update on the evaluation criteria and procedures. (Mark E if you are not a classroom teacher.)

79. Ensures that a pre-evaluation conference is held if I request one. (Mark E if you have never requested a conference or if you are not a classroom teacher.)

80. Ensures that all observers spend at least twenty minutes in each unannounced GTEP observation. (Mark E if you are not a classroom teacher.)

81. Ensures that written feedback is given within five working days after each GTEP observation. (Mark E if you are not a classroom teacher.)

82. Ensures that an annual, individual, GTEP summary evaluation conference is held for all teachers in the standard phase or other teachers who score less than satisfactory. (Mark E if this is your first year at this school or if it is the principal's first year at this school or if you are not a classroom teacher.)

83. Ensures that when GTEP extended observations are implemented, the evaluator provides a clear, concise plan for assistance or a Professional Development Plan. (Mark E if you have never been placed in the extended observation phase or if you are not a classroom teacher.)

V-B Contributes to a positive teacher evaluation process or ensures that the administrator with this delegated authority contributes to a positive evaluation process.

Key Points: The principal should be informed of each staff member's performance either by observing directly or by reviewing observation forms completed by other administrators.

Descriptors

84. On the GTEP observation form, offers specific, written feedback related to the lesson observed or the task performed. (Mark E if the principal has never observed you or if you are not a classroom teacher.)

85. On the GTEP observation form, offers written feedback that is helpful. (Mark E if the principal has never observed you or if you are not a classroom teacher.)

86. Ensures that assistance and adequate time to improve are provided if problems are identified. (Mark E if no problems have ever been identified or if you are not a classroom teacher.)

87. Ensures that GTEP observations and feedback are spaced throughout the school year so that the evaluation process is a year-long commitment to performance improvement. (Mark E if this is your first year at this school or if it is the principal's first year at this school or if you are not a classroom teacher.)

88. Offers verbal feedback and encouragement based on knowledge of my performance. (Mark E if you are not a classroom teacher.)

Competency VI - School Climate.

Using the same response options, mark the frequency with which you agree with each statement below.

89. I enjoy working in this school/department.

90. I am proud of the work that is done by my peers in this school/department.

91. My professional opinions are important to my peers.

92. The professional opinions of my peers are important to me.

93. My professional opinions are important to my principal.

94. My principal's professional opinions are important to me.

95. I am proud of the way our students represent this school.

96. I am proud of the way our principal represents this school.

97. I am proud of the way our staff members represent this school.

98. The principal has high expectations of the students in this school.

99. The staff members have high expectations of the students in this school.

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